
EVALUATION OF LIBRARY WEBPAGES OF SELECT AGRICULTURAL RESEARCH INSTITUTIONS

Lalita K Sami and Basavaraj S.

Professor. Department of PG Studies and Research in Library and Information Science,
Gulbarga University, Gulbarga.
Librarian, Government First Grade College Shahapur, Yadagir (Dist) Karnataka.

Abstract :

Websites are an important and efficient means of communication for research Institutions wishing to interact with their users. Present study has focused on evaluating how websites are structured to ensure their usability and usefulness. General information about library, effectiveness of the homepage, content presentation, type of navigation used, type of user assistance made available, search facility provided and value additions included on the websites are the parameters on which evaluation is carried out. Study has resulted in few major observations. First impression of the homepage is critical for successful user satisfaction and it makes user to revisit the website. Despite of its essence it has not been achieved widely. Similarly, Study revealed that there are few more areas where improvements are required. Use of graphics and multimedia for effective content presentation, virtual help to users, facility to search within the website and WWW and provision for OPAC on library websites are to name few.

KEYWORDS :

Websites Evaluation; R&D Libraries; ICAR Library Websites.

1.INTRODUCTION

The role of library website in the delivery of information services has never been more prominent as it is now. Library Websites have grown from static to comprehensive gateways to electronic sources and services in the present day. (Margam, 2012) Present development has greatly influenced the libraries at agricultural research institutions in India. They have obtained extensive experience in providing web-based library services through transforming all information resources and services into web enabled access. (Bansal, Jivesh, 2012) This has proved that, libraries of agricultural research institution are in a more privileged position like other special libraries in India.

Success of web enabled access depends upon the usability and usefulness of the library website, as it acts as an entry point for accessing information resources and services. Effective web design and quality and content presentation decides the usability and usefulness of the website. Hence, libraries have to be cautious in design and development of their website and also they need to ensure that, it remains up to date with regard to both content and design features. Continuous evaluation helps web administrators to keep the website always in line with the latest technologies thereby it can be made more usable. (Margam, 2012) Present study aims to evaluate websites for their design and content features through observation and investigates how libraries covered under the present study are adopting content features in their library websites using the latest technologies to make them more serviceable.

EARLIER STUDIES:

There have been a number of studies conducted on evaluation of library websites. However, most of the studies pertain to academic libraries with a focus on basic information of library websites but not on design and accessibility features. Advancement in technology has changed the approach of website evaluation from traditional to content analysis and evaluation of the factors pertaining to design features such as load time, page size, use of headings, frames, titles, feed, type of navigation used and so on. Joicy and Varghese (2011) found from their evaluative study on Research and Development (R&D) library websites in India that, libraries are keen on providing basic information on websites and only few libraries have extensively provided opportunity for user feedback, virtual help and used proper navigation features. Karla & Verma (2011)

have also conducted an evaluative study on R&D libraries for usability and usefulness features. Authors have found from their study that, there are many inconsistencies and terminological issues on websites. They have also suggested a model for evaluation of library websites. Erica & Mark (2012) have conducted an evaluative study at Johns Hopkins University, Baltimore MD found that, students and faculty in institution are expecting more and more web based services and they wanted their library website should be made more usable.

Objectives:

Main objective of the present study is to evaluate the design features and presentation and quality of the content of library websites of agricultural research institutions in India.

In particular to assess/evaluate:

General information presented on the websites
 Effectiveness of the homepage of the website
 Quality and presentation of the content such as readability, use of graphics and multimedia
 Effectiveness of the navigation used
 Comprehensiveness of the website
 Type of user assistance made available on websites
 Provision for search facility on websites (Within & WWW)
 Value additions included on the websites
 Suggest measures for improvement of R&D library websites in agriculture;
 To address certain issues for future studies in the area of websites evaluation

SCOPE AND METHODOLOGY:

The focus of investigation in this study includes four Deemed Universities, forty eight research institutions and seventeen research centers (Total sixty Eight) which are working under ICAR. Out of the selected sixty eight research institutions, only twenty Eight institutions have a website for library. Hence, only these libraries have been considered for the present study.

The scope of the evaluation criteria covers the general information of library, first impression of the home page, quality and presentation of the content, navigation used, comprehensiveness of the website, user assistance made available, search facility provided and value additions included on library websites.

A structured checklist with 38 questions was designed keeping in view the stated objectives and literature available to examine the various usability and usefulness features of library websites. Literature consulted for the preparation of checklist is web design and evaluation guidelines suggested by Nielsen (1994), Keevil, (1998)IBM, (2001), Karen, (2002) and U.S. Department of Health and Human Services (2012). The quantitative rating system of Likert's 5 point scale has been implemented to capture the responses. Ratings have been given from favorable to unfavorable whereas 1 is poor and 5 is excellent. Non availability of any checklist item is considered as poor. Observation method is used for the study and each website is evaluated for attributes given in the checklist and ratings are given based on the compliance of the attributes. For evaluation of the features such as navigation, use of graphics/charts, links and to know the website structure, guidance is taken from professional web designers as these features are technical in nature. PingdomWebsite Speed Test has been used to assess size and download speed of the homepage. The data analysis phase took place from 25thMar 2014 to 28thMar 2014.

Analysis and Interpretation of the data: Data captured through observation method is analyzed using SPSS (Version 16) for identification of frequency, percentage, mean and standard deviation.

Library General Information relates to the basic details of the library, such as information on library, collection details and access to e-resources on library websites. 53.57% of the websites are rated moderately for collection details likewise and one third of the websites are rated as moderate for their information about library. One fourth of the websites are rated as good for providing access to e-resources. Information on staff details is widely ignored by 71.43%of the websites, though it is important attribute to be present on library website.

Checklist Item	Poor (%)	Fair (%)	Good (%)	V Good (%)	Excellent (%)	Mean	SD
Information about library	0(0)	7(25)	11(39.29)	9(32.14)	1(3.57)	3.14	0.84
Collection details(Print & Electronic)	1(3.57)	7(25)	15(53.57)	4(14.29)	1(3.57)	2.89	0.83
Staff details (with contact info)	20(71.43)	3(10.71)	3(10.71)	1(3.57)	1(3.57)	1.57	1.06
Services offered	0(0)	20(71.43)	3(10.71)	4(14.29)	1(3.57)	2.50	0.88
Access to e-resources	4(14.29)	12(42.86)	7(25)	3(10.71)	2(7.14)	2.54	1.10

Table. 1- Library General Information (N=28)

Homepage: First impression of the homepage, size and download speed, browser compatibility and clarity on the site sponsor are critical success factors for any website's homepage. 85.71% of the websites are rated as good for size of the homepage and clarity on site sponsor. Similarly, near to two third of the websites are rated as good for download speed and clarity on date of last updating and same number of websites are rated as fair for making provision to view the homepage in multiple language and their printer friendliness. None of the websites are rated as excellent for homepage size, provision to view the website in multiple languages, browser compatibility, printer friendliness and date of last updating.

Checklist Item	Poor	Fair	Good	V Good	Excellent	Mean	SD
First impression of the of the homepage	0(0)	16(57.14)	0(0)	11(39.29)	1(3.57)	2.50	0.69
Download speed of the homepage	1(3.57)	6(21.43)	18(64.29)	1(3.57)	2(7.14)	2.89	0.83
Size of the homepage	0(0)	4(14.29)	24(85.71)	0(0)	0(0)	2.86	0.35
Provision to view website in multiple languages	5(17.86)	18(64.29)	5(17.86)	0(0)	0(0)	2.00	0.60
Browser compatibility of the website	0(0)	18(64.29)	6(21.43)	4(14.29)	0(0)	2.50	0.74
Printer friendliness of the homepage	5(17.86)	19(67.86)	4(14.29)	0(0)	0(0)	2.79	0.91
Clarity on site sponsor	0(0)	0(0)	24(85.71)	1(3.57)	3(10.71)	3.25	0.64
Clarity on Date of last updating/Copy Right	4(14.29)	5(17.86)	19(67.86)	0(0)	0(0)	2.54	0.74

Table 2.Homepage (N=28)

Quality and presentation of the content: Proper organization and readability of the content with effective use of graphics and multimedia decides the effectiveness of website. More than two third of the websites are rated as good for organization and readability of content, use of graphics and consistent format of the website. One third of the websites (35.71%) are rated as good for providing list of links. 10.71% websites are rated as excellent for organization and readability of content equally.

Checklist Item	Poor	Fair	Good	V Good	Excellent	Mean	SD
Content organization	0(0)	0(0)	20(71.43)	5(17.86)	3(10.71)	3.39	0.68
Readability of the content	0(0)	2(7.14)	19(67.86)	4(14.29)	3(10.71)	3.29	0.76
Use of graphics/charts/pictures	0(0)	8(28.57)	18(64.29)	2(7.14)	0(0)	2.79	0.56
Use of multimedia	16(57.14)	9(32.14)	3(10.71)	0(0)	0(0)	1.54	0.69
List of links and ease of access to them	16(57.14)	1(3.57)	10(35.71)	1(3.57)	0(0)	1.86	1.04
Consistent format throughout the site	0(0)	0(0)	22(78.57)	5(17.86)	1(3.57)	3.25	0.51

Table 3. Quality and presentation of the content (N=28)

Navigation: Homepage link on every page, help screens, XML sitemap and ALT attributes are helpful for websites. More than two third of the websites (71.43%) are rated as very good for XML sitemap and same number of websites are rated as good for their ALT attributes. Near to two third (60.71%) of the websites are rated as good for availability of help screens. None of the websites are rated as excellent for any of the attributes under navigation category.

Checklist Item	Poor	Fair	Good	V Good	Excellent	Mean	SD
Homepage link on every page of the website	6(21.43)	18(64.29)	2(7.14)	2(7.14)	0(0)	2.00	0.77
There is a clear identification of current location	18(64.29)	6(21.43)	3(10.71)	1(3.57)	0(0)	1.54	0.83
Availability of help screens	5(17.86)	1(3.57)	17(60.71)	5(17.86)	0(0)	2.79	0.95
XML sitemap	6(21.43)	1(3.57)	1(3.57)	20(71.43)	0(0)	3.25	1.26
ALT attributes	6(21.43)	2(7.14)	20(71.43)	0(0)	0(0)	3.29	1.24

Table 4. Navigation (N=28)

Purpose and Comprehensiveness of the website: Clarity on domain name helps to understand the purpose of the website, whereas the comprehensiveness of the website decides the coverage of the information. 60.71% of the websites are rated as excellent for clarity on domain names and 82.14% of the websites are rated as good for comprehensiveness of the website. One fourth (25%) of the websites are rated as good for their accuracy and reliability of the website.

Checklist Item	Poor	Fair	Good	V Good	Excellent	Mean	SD
Domain name clearly indicates the purpose of the site	0(0)	7(25)	1(3.57)	3(10.71)	17(60.71)	4.07	1.30
Comprehensiveness of the site	0(0)	5(17.86)	23(82.14)	0(0)	0(0)	2.82	0.39
Accuracy and reliability of the site	7(25)	8(28.57)	7(25)	3(10.71)	3(10.71)	2.54	1.29

Table 5. Purpose and Comprehensiveness of the website (N=28)

User Assistance/Feedback: FAQ, user instructions and virtual helpdesk are critical for higher user satisfaction. 75% of the websites are rated as good for effective user instructions and 71.43% websites are rated as very good for making provision to collect feedback from users. Similarly, 67.86% of the websites are rated as fair for FAQ facility on websites. Though virtual helpdesk is essential in research institutions, it has been neglected extensively.

Checklist Item	Poor	Fair	Good	V Good	Excellent	Mean	SD
Availability of FAQ's	6(21.43)	19(67.86)	2(7.14)	1(3.57)	0(0)	1.93	0.66
Availability of User instructions	6(21.43)	0(0)	21(75)	1(3.57)	0(0)	2.61	0.87
Provision to give user feedback	5(17.86)	0(0)	3(10.71)	20(71.43)	0(0)	3.36	1.16
Provision for virtual helpdesk/Live chat	26(92.86)	0(0)	0(0)	2(7.14)	0(0)	1.21	0.78

Table 6 User Assistance/Feedback (N=28)

Search Facility: Facility to search within the website and WWW are essential to retain the user on homepage. Though these attributes are critical but these have been neglected and more than 80% of the websites are rated as poor for these attributes. Provision to search union catalogues from the library website is another area to be included on website but only 25% of the websites are rated as good for this whereas more than 70% of the websites are rated as poor.

Checklist Item	Poor	Fair	Good	V Good	Excellent	Mean	SD
Provision to search within the site	23(82.14)	0(0)	2(7.14)	1(3.57)	2(7.14)	1.54	1.23
Provision to search WWW	23(82.14)	0(0)	3(10.71)	0(0)	2(7.14)	1.50	1.17
Provision to search catalogues of other institutions	20(71.43)	0(0)	7(25)	0(0)	1(3.57)	1.64	1.09

Table 7 Search Facility (N=28)

Value additions: Announcements on any seminars or conferences, list of new additions of books and journal issues and OPAC facility are value additions to library website. 89.29% of the websites are rated as good each for information on announcements of seminars/ conferences and information on project related information of the institutions. More than two third (71.43%) websites are rated as good for presenting list of new additions of books and journals issues on homepage. Though OPAC is a critical success factor for library website, it has not been effectively implemented by most of the websites.

Checklist Item	Poor	Fair	Good	V Good	Excellent	Mean	SD
Information on announcements of seminars /conferences/workshops	2(7.14)	0(0)	25(89.29)	0(0)	1(3.57)	2.93	0.66
List of new additions books/ journals to library	5(17.86)	0(0)	20(71.43)	1(3.57)	2(7.14)	2.82	1.02
Information on projects/consultancy activities being carried out at institution	1(3.57)	0(0)	25(89.29)	1(3.57)	1(3.57)	3.04	0.57
OPAC Search	21(75)	0(0)	3(10.71)	2(7.14)	2(7.14)	1.71	1.32

Table 8 Value Additions (N=28)

FINDINGS AND RECOMMENDATIONS:

Based on the analysis of the data, an attempt has been made to find the status of the usability and usefulness features on library websites of ICAR institutions and suggest few recommendations, which will help designers of the Website to make library Website more interactive, attractive and workable. It will also be helpful the user of the library Web site to evaluate its content, quality of information, type of navigation used and so on.

For presentation of general information on library, websites are equally rated as fair and good. Hardly there are websites which are rated as excellent. Since, these features are helpful for user to know about the library, it is essential to ensure that, websites are up to date and provide all the features listed above, along with staff contact details.

Most of the websites are rated either good or fair for all the attributes under homepage. As homepage creates a positive impression on the user, it is required to revamp their homepage and make them more attractive and usable. Libraries may use

Google guidelines for achieving compliance to achieve high performance.

Most of the websites are rated as good for quality and presentation of content with an exception of use of multimedia and list of links. Since, content is a prime factor on websites of research institutions, it is required to enhance the quality of content and the way it is presented. Use of multimedia helps to create positive impression on users.

Navigation is not constantly rated across all the features. Help screen, XML sitemap and ALT attributes are rated moderately. Most of the websites are rated either fair or poor for rest of the features. Since, proper navigation helps the users move across the websites to find their relevant information, libraries need to relook at these features and make them more usable.

Clarity on domain name and comprehensiveness of the websites are rated well. However, there is a need to achieve higher level of accuracy and reliability of the content as users in R&D always look for pin pointed information.

Providing user assistance with proper FAQs and user instructions are rated moderately and Feedback is as very good. Virtual helpdesk are highly neglected on ICAR library sites. Since, these attributes are critical for higher satisfaction for users', it is essential for web administrators to make provision for all these.

Search facility is extensively neglected by most of the websites. Since, this helps user to make search for relevant information within the website and also on WWW, there is a strong need for making this feature available on websites.

Websites are moderately rated for value additions except OPAC feature. As OPAC is an essential tool for searching information on library collection, it must be linked on homepage.

CONCLUSION:

Present study provides a picture of various ICAR library websites for their usability and usefulness factors. Result shows that, all the features which are evaluated are rated either moderately or just above than that. Hardly there are some features which are rated as excellent on select websites. This indicates that ICAR institutions have to take aggressive steps towards revamping their library website as they decide the success rate of parent institution.

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Lalita K Sami

Professor. Department of PG Studies and Research in Library and Information Science,
Gulbarga University, Gulbarga